



Ethical Concerns of Artificial Intelligence in Student Assessments from a Higher Education Perspective

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Abstract

As Generative Artificial Intelligence (GenAI) tools become more accessible, students may utilise them for assistance in completing assignments and assessments, raising ethical concerns regarding fairness and academic integrity. Moreover, there has been an increasing reliance on GenAI tools in higher education for completing academic tasks which might obscure the true assessment of a student's capabilities. Subsequently, it has become difficult to distinguish between the student's work and the assistance rendered by GenAI. These concerns prompt a critical examination of how GenAI tools are reshaping the landscape of higher education, particularly with regard to their ethical implications. Hence, this study examines the ethical dimensions pertaining to the use of GenAI by students during assessments in higher education. Furthermore, the study assesses how educational institutions can implement policies that effectively balance the benefits of AI in education with the need to maintain rigorous standards of academic integrity. As a result, the study is a desktop review that systematically analyse existing literature related to the field. By synthesising current understandings and debates, the review explores the use of GenAI tools in educational assessments by students. A total of eighteen studies sourced from various databases such as Google Scholar, Scopus and Web of Science were reviewed and analysed. The findings of the study revealed key issues such as the potential for GenAI to facilitate academic dishonesty, the challenge in distinguishing between legitimate use and the misuse of GenAI tools, and the implications for equal opportunities among students with varying access to GenAI tools. The study provides recommendations for clear guidelines, supported training interventions and frameworks that define the ethical use of GenAI in student assessments. The study highlights the role of educators, administrators, technology developers and policymakers in developing relevant policies. Conclusively, this study contributes to the creation of a fair and equitable educational environment, where the integration of AI enhances learning while upholding academic integrity and fairness.

Keywords: Academic Integrity; AI Ethics; AI in Education; Educational Policy; Fairness in Assessments

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1.0 Introduction

The proliferation of Artificial Intelligence (AI), in particular Generative AI (GenAI) across numerous sectors has stimulated significant debate, particularly within the realm of higher education. As institutions strive to regulate the adoption of GenAI into their educational frameworks, the discourse among educators, administrators, and policymakers has intensified, focusing on both the potential benefits and intrinsic challenges. Since its release in November 2022, AI has entrenched itself as a pivotal technological element across various sectors, with the potential to revolutionise education by supporting diverse learning styles and fostering inclusive, productive environments (Ray & Sikdar, 2023). Artificial Intelligence's potential to augment traditional pedagogical approaches and adapt to the demands of contemporary educational systems addresses several longstanding challenges (Ahmad et al., 2023). By transforming traditional teaching and assessment approaches, GenAI introduces innovative solutions for personalised learning and real-time feedback. As GenAI tools become increasingly ubiquitous and integrated into educational practices, including student assessments, they bring significant ethical concerns to the forefront (Lai et al., 2024). In support, Williams (2024) argues that the integration of AI tools in education raises critical ethical concerns regarding the integrity of academic work. Issues such as data privacy, algorithmic bias, AI hallucinations and the potential for academic dishonesty must be carefully considered (Williams, 2024). Consequently, the responsible and ethical use of AI in education is a crucial topic that necessitates ongoing discussion and careful consideration.

In higher education, the growing reliance on the use of GenAI for completing assignments and assessments raises pivotal questions. One major concern is the potential erosion of academic integrity, as GenAI tools may enable dishonest practices that obscure a student's true abilities. For example, the emergence of GenAI tools like ChatGPT in mathematics education, brings exciting advancements in solving complex problems and enhancing learning, but it also raises concerns about students potentially sacrificing genuine understanding for convenience (Hodge & York, 2024). Moreover, there is a rich pool of GenAI tools available to students to facilitate academic dishonesty and plagiarism. Chan (2023) reveals that nearly one-third of university students in the United States have used AI to complete coursework. The challenge lies in distinguishing between the student's own efforts and the assistance rendered by GenAI tools, making it difficult to accurately assess a student's knowledge and skills. This issue is particularly pressing in the context of distance education, where the use of AI tools is more prevalent and difficult to monitor.

This study probes the ethical dimensions of GenAI usage by students during academic assessments, scrutinising how these technologies influence fairness, academic integrity, and the authentic evaluation of student capabilities. The research is guided by two key questions: how do GenAI tools affect the fairness, academic integrity, and accurate evaluation of student abilities in higher education? And what ethical guidelines and policies should be implemented to safeguard the proper use of GenAI tools in student assessments? Employing a comprehensive desktop review methodology, the study systematically analyses existing literature to synthesise current research and debates on the integration of GenAI in academic assessments.

Key issues explored include the potential for GenAI to facilitate academic dishonesty, the complexities in differentiating legitimate use from misuse of GenAI tools, and the implications for equal opportunities among students with varied access to advanced technologies. The study also examines how higher education institutions can develop and implement policies that balance the benefits of GenAI with the necessity of maintaining rigorous academic standards. This involves creating clear guidelines and ethical frameworks to define acceptable use of GenAI in student assessments. The roles of educators, students, technology developers and policymakers are crucial in developing and advocating these policies to ensure a fair and equitable educational environment.

By addressing the ethical concerns, this study aims to contribute to the development of an educational landscape where GenAI enhances learning without compromising integrity or fairness. The emphasis is on fostering a balanced approach that leverages the advantages of GenAI while upholding the core values of academic honesty and equity.

2.0 Methodology

This study implemented a qualitative Systematic Literature Review (SLR) methodology adhering to the guidelines outlined by Petticrew and Roberts (2006) and further developed by Okoli and Schabram (2010). The SLR methodology encompasses a rigorous process of identifying, selecting, analysing, and synthesising relevant research to provide a comprehensive overview of a specific topic. This approach aims to address the research questions.

Key steps include defining research questions and developing related keywords, conducting systematic searches across databases, screening and selecting studies based on predefined criteria, and extracting and synthesising data to draw significant insights and conclusions that address the aim of the study. One of the key benefits of an SLR is that it provides a structured and comprehensive approach to examining existing research, ensuring that the review is thorough and unbiased (Tranfield, Denyer and Smart, 2003). This approach is particularly useful within the context of this study, as it allows us to systematically gather and analyse a wide range of perspectives and findings. By minimising bias and enhancing the reliability of conclusions, more accurate and actionable recommendations to address the identified ethical issues can be provided. Furthermore, the SLR approach enhances the reproducibility of the findings, necessary for informing evidence-based decision-making within higher education institutions. Limitations included the potential for overlooking relevant studies due to rigid inclusion criteria and the time-intensive nature of the process (Boell & Cecez-Kecmanovic, 2015).

The research was conducted as a team of four, occasionally working in pairs. During Step 1 of the systematic literature review, we began with clearly defined research questions, which guided the review process. This facilitated the selection of appropriate keywords and search terms. The keywords included “academic integrity”, “AI ethics”, “educational policy”, “fairness in assessments”, and “AI in education”. During an initial test using Google Scholar, we realised the vastness of the literature and the need to further refine the keywords to ensure relevance to the topic. Through this process further keywords were identified, “AI bias in student assessments”. The search terms were refined several times and after much deliberation the SLR was conducted using the final search terms, “AI ethics”, “higher education” and “student assessments”. In conducting the SLR, the researchers used the search query with the terms “AI ethics”, “higher education”, and “student assessments” in this specific order,

separated by commas and enclosed in inverted commas. This ensured that the search results focused precisely on literature that discussed these concepts collectively, with a date range limited to 2022 to 2024.

To identify relevant studies that address the research question, multiple academic databases were searched, including Google Scholar, Web of Science and Scopus. This multi-database approach helped mitigate source bias and ensured a diverse collection of studies (Booth, Sutton and Papaioannou, 2016). This approach enhanced the richness of the data collected and presented a holistic view of the topic (Matenda et al., 2021). Additionally, the systematic review guidelines by Kitchenham and Charters (2007) was consulted, which recommend defining a clear protocol for the review, specifying inclusion and exclusion criteria, conducting a thorough literature search, and critically appraising the quality of the studies. These guidelines provided a structured framework that enhanced the rigor and transparency of the review process. However, no protocol was necessary due the nature of the research conducted. The strategy was to pool studies from various databases with an aim to gather a well-rounded selection of relevant literature.

Figure 1 below illustrates the study selection process. The comprehensive search procedure compiled seventy-two research studies to be included in the initial sample (Step 1). This comprised forty-eight studies from Google Scholar, five studies from Web of Science, eighteen studies from Scopus and one hand searched article. One duplication was found, resulting in a total of seventy-one remaining studies.

Inclusion and exclusion criteria were then formulated (Step 2) to evaluate the sample of studies for its relevance. These criteria were developed based on the guidelines provided by Higgins and Green (2011) and were refined through team discussions to align with the research objectives.

Studies were included if the following criteria was met: (a) Studies that focus on the use of GenAI tools by higher education students to support their assessment tasks and research on distinguishing between authentic student work and AI assistance; (b) Studies with a focus on GenAI in higher education; (c) Peer-reviewed articles and conference papers and proceedings published between 2022 and 2024, ensuring a focus on recent developments within the field; and (d) Articles written in English to ensure accurate interpretation by the research team.

Studies were excluded if: (a) It did not focus on the use of GenAI by higher education students to support their assessment tasks and those that focused primarily on the technical attributes of

advocated to maintain the empirical rigor of the review (Petticrew and Roberts, 2006). These criteria fostered a focus on quality, relevant research that addressed the research questions, while excluding studies that did not contribute significantly to the understanding of institutional perspectives on ethical concerns in GenAI supported students' assessments.

In the next step (Step 3), the title and abstract of each identified study were vetted against the specified criteria. This initial screening of titles and abstracts allowed us to efficiently identify potentially relevant studies for further review, while excluding those that did not meet our predetermined criteria. This process helped to streamline the review and ensure that only the most pertinent studies were included for full-text analysis. Out of a total of seventy-one studies that were vetted during this step, thirty-three studies were excluded, whilst the remaining thirty-eight studies were selected for retrieval.

After the initial screening of titles and abstracts, all citations deemed potentially relevant were collected for full-text analysis (Step 4). One article was not retrievable. The remaining thirty-seven studies were independently reviewed by pairs of researchers to enhance reliability and reduce individual bias. Following the removal of nineteen irrelevant studies, the final sample comprised of eighteen articles, which were thoroughly reviewed and analysed.

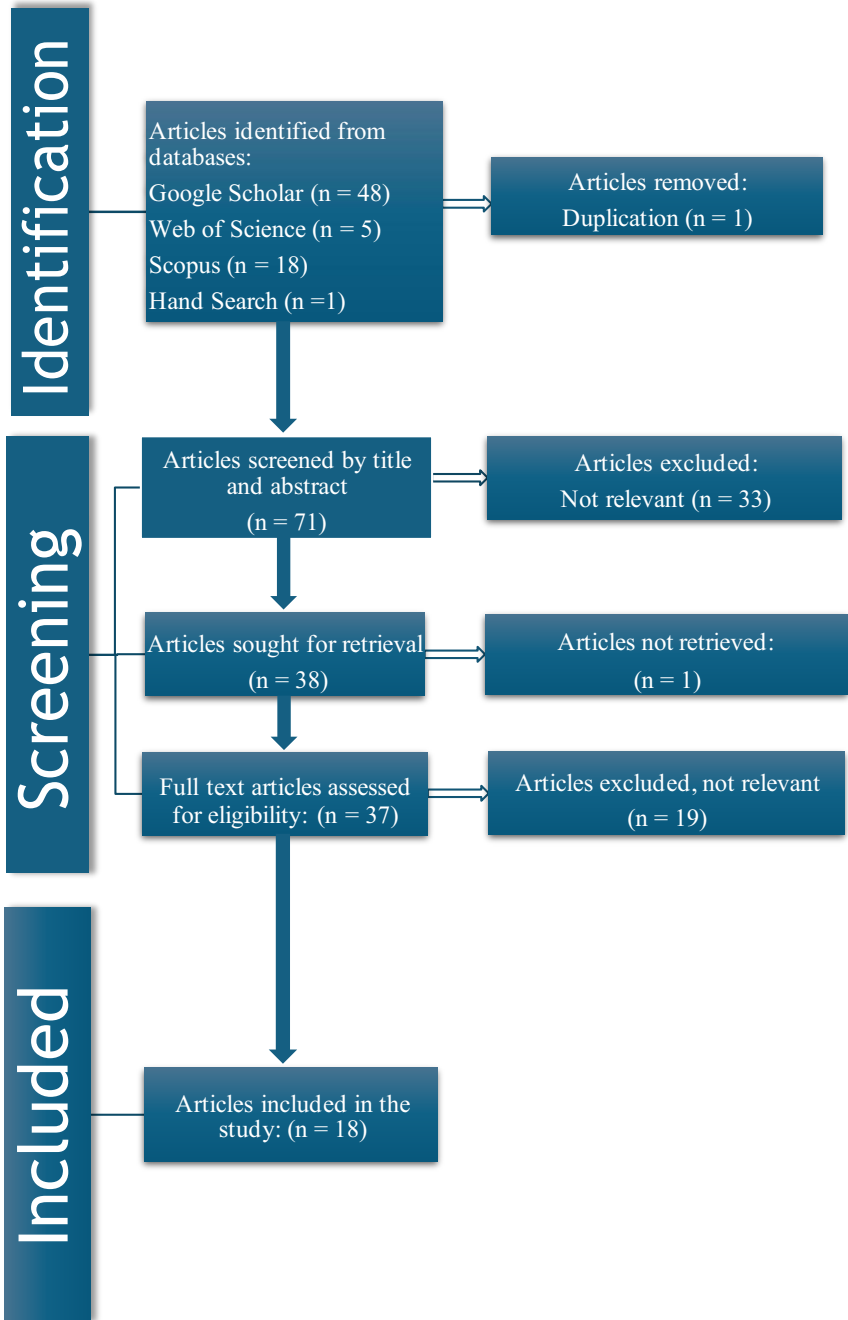


Figure 1: The SLR process flow diagram

In the final step (Step 5), a narrative synthesis was conducted where a methodical extraction and evaluation of the data was conducted, permitting the identification of important themes. This process offered a holistic understanding of the ethical concerns surrounding the use of GenAI in student assessments. Additionally, it offered valuable insights for higher education policymakers and stakeholders to inform future decision-making and policy development regarding the adoption of GenAI in student assessments.

While the SLR method ensured a comprehensive and unbiased review, it was also time-consuming and required careful management of the search and appraisal processes to maintain consistency. Additionally, the reliance on published literature may have excluded valuable insights from grey literature and non-peer-reviewed sources (Adams et al., 2017).

In conclusion, this systematic literature review underscores the importance of balancing the benefits of AI in education with the need for ethical guidelines and frameworks. By systematically analysing the literature, with an aim to contribute to a fair and equitable educational environment where AI enhances learning without compromising academic integrity or fairness.

3.0 Results and discussion

The integration of GenAI into educational assessments is a transformative shift in higher education. This section presents and discusses the results, focusing on the adoption of GenAI within educational assessments, examining how it reshapes the landscape of evaluating student abilities. We explore the advancements GenAI brings to achieving accurate and nuanced evaluations, and the challenges of balancing these benefits with the need to preserve academic integrity. By analysing the potential and pitfalls of GenAI within this context, we aim to provide a comprehensive understanding of its impact on educational practices and outcomes.

3.1 Integration of AI in educational assessments

The integration of AI in higher education assessments presents a significant opportunity to reshape how educators evaluate student learning. Makhoahle (2024), suggest that AI can introduce more objective and consistent assessments by minimising human bias in grading, using standardised criteria to analyse various student work, including written assignments and practical exercises. Furthermore, AI can personalise the learning experience by tailoring assessments to individual student needs (Adiguzel et al., 2023; Sanchita & Sandhya, 2023; Sanni et al., 2024). By analysing individual performance data, AI can pinpoint strengths and

weaknesses and adjust the difficulty of questions and tasks accordingly. This method optimises the learning process by targeting areas where students require the most support.

A study conducted by Mohammed et al. (2024) at Usmanu Danfodiyo University explored how AI could be integrated into higher education assessments. The study highlights the potential of AI to provide timely and targeted feedback, immediate and constructive feedback, allowing for continuous improvement. Chisom et al. (2024), also highlight the significant role of timely and targeted feedback in skill development, a benefit readily offered by AI-driven assessments. Unlike traditional assessments that often involve delays in feedback, AI-powered systems can provide immediate and constructive feedback to students. This real-time feedback loop enables students to quickly identify errors, understand areas for improvement, and make necessary adjustments to their learning strategies (Chisom et al., 2024).

While these tools offer benefits such as efficiency, consistency, accessibility, immediate feedback, and fraud prevention, Mehrabi et al. (2021) caution about the ethical considerations surrounding the use of AI in assessment. Specifically, students and staff raised concerns about the transparency, data privacy and questions surrounding the validity and fairness of AI-generated assessments. To address these challenges, the study suggested that institutions should develop principles for the ethical use of AI, increase training for instructors on how to incorporate AI tools into their courses, and provide workshops for students to help them understand how AI assessments work. Additionally, the study recommended that institutions should conduct ongoing bias testing and validation of AI systems and maintain human scoring and oversight mechanisms.

Although ChatGPT can be a valuable tool for assisting students in excelling, the integration of AI, particularly AI chatbots like ChatGPT, into educational assessments presents a multifaceted challenge in higher education. While AI tools offer potential benefits, such as assisting students with research, data analysis, offer immediate and constructive feedback and understanding complex questions, concerns about academic integrity and ethical considerations are paramount, especially in the high-stakes assessment culture of Hong Kong (Lai et al., 2024b). This was also in consistent with study conducted by Fischer et al. (2023) who highlight the ChatGPT's ability to generate human-like text raises concerns about cheating, as students might submit AI-generated responses as their own work. This situation necessitates a proactive approach from educators and institutions to establish clear guidelines on the acceptable use of AI in assessments, ensuring fairness and maintaining the value of academic qualifications.

Furthermore, Malmstrom et al. (2023) and Atlas (2023) underscore the importance of addressing students' ethical concerns and promoting responsible AI use. Educating students about plagiarism, responsible AI utilisation, and the importance of acknowledging AI assistance in their work is critical. Thus, Institutions should provide clear guidelines, conduct workshops, and integrate experiential learning to foster a culture of ethical AI adoption in assessments.

Rasul et al. (2023) highlight the transformative potential of AI in higher education assessments, particularly in creating innovative assessment activities. This integration aligns with the principles of constructivist theory, which emphasises the importance of authentic assessment and formative feedback.

Dwivedi et al. (2023); Mollick and Mollick (2022) explain that innovative assessment activities encourage student engagement with learning resources, fostering critical thinking and providing real learning experiences. One way AI can contribute to innovative assessment is by developing assessment questions, lesson plans and curricula (Deng and Yu, 2023) point out that AI like ChatGPT can generate initial ideas for assessment design, assist academics in creating rubrics and produce drafts of case studies or other assessments for further editing. Furthermore, ChatGPT can be integrated into assessment tasks, requiring students to critique generated text or essays and build high-quality articles from generated drafts. This approach challenges students' existing mental models and develops critical thinking skills (Deng and Yu, 2023). The presence of AI like ChatGPT has prompted a reassessment of assessment design, shifting the focus to fostering creativity, critical thinking, authenticity, practicality and collaboration, all of which align with the constructivist theory's emphasis on authentic and formative assessment (Nieminen et al., 2022).

3.2 Fairness and academic dishonesty

Fairness and academic integrity in student assessments in higher education are pertinent issues, particularly with the integration of AI tools. In the context of higher education, online teaching and learning has seen a rapid rise post the Covid-19 pandemic, with a related increase in the use of AI tools. Concerns over preserving academic integrity in relation to student assessments have grown.

According to Chan (2023), AI has the potential to improve educational outcomes. However, Chan (2023) also stresses how important it is to make sure these tools are used properly and ethically. The author highlights the issue of equitable access to AI technologies, which is

necessary in preserving fair competition for students from various socioeconomic backgrounds. Higher education institutions are encouraged to ensure that every student has access to the AI resources and instruction required to prevent discrimination and the reinforcement of preexisting prejudices and stereotypes (Chan, 2023).

Chan (2023) also highlights how important it is to give credit to AI-generated content to maintain academic integrity. To ensure ethical use of AI technologies, he suggests that institutions require students to clearly acknowledge the role of AI in their work, similar to how they acknowledge traditional academic citations. He further encourages these institutions to invest in AI literacy programs, thereby enhancing responsible AI use.

Williams (2024) explains that the student is often not aware of what constitutes academic dishonesty. Especially international students with different backgrounds in academic behaviour and ethical practices. The institution plays a vital role in clearly communicating what is acceptable and what is not (Williams, 2024).

Younger students believe that it is easier to cheat in online assessments compared to older students, leading to a noticeable disparity in the perceptions of different generations. It follows that traditional methods for preventing cheating may not be effective in online settings, therefore there is a need to reconsider the definition of academic honesty in a digital era (Reedy et al., 2021). Similarly, Hua (2023) notes that depending on AI tools has been linked to varying views of academic integrity, with some students showing a positive inclination towards academic dishonesty, which is influenced by demographic variables including age, gender, and technological aptitude.

Nonetheless, during this evolutionary phase of advancement in technological usage and reliance, Hancock et al. (2022) explains that the need for higher education institutions to maintain the integrity of their assessment processes has not diminished.

Continuous research to understand the scope and characteristics of academic dishonesty in digital platforms is critical. Toquero (2021) and Hancock et al. (2022) suggest that alternative assessment methods that promote critical thinking and enhanced learning outcomes may be investigated. Ultimately, resolving these issues is essential to maintaining higher education institutions' reputation and guaranteeing that academic integrity is a fundamental component of the learning process.

Accurate evaluation of student abilities

Given the ongoing progress and integration of AI in higher education, it is imperative to thoroughly contemplate the ethical ramifications of employing AI-driven assessments to assess students' capabilities. In recent years, the issue of academic dishonesty has become increasingly alarming in higher education, and the emergence of advanced AI chatbots such as GPT-3 and ChatGPT-4 has only compounded this problem (Sweeney, 2023). These chatbots according to Sweeny, have the ability to produce complex information, which raises the possibility of them being used for dishonest academic activities. In addition, Chan (2023) argues about the concern of the potential negative impact and decline of the growing utilisation of generative AI tools, on students' writing and critical thinking abilities. Hancock et al. (2023) suggest that since universities credential students' learning through assessments, awarding degrees and diplomas, they must also ensure to demonstrate the integrity of these assessments to external stakeholders. For instance, institution of higher learning may enforce stringent rules for online tests to guarantee academic integrity such as administering software to monitor students during tests to deter cheating. As lack of integrity within the academic environment is a deceptive or unfair action that is aimed at achieving better results in assessments (Sweeney, 2023).

Likewise, it is important to guarantee the accuracy and fairness of assessments. An accurate assessment of student capabilities is a crucial component of higher education, as it enables institutions to assess learning outcomes, offer valuable feedback, and make well-informed decisions regarding students' advancement and support requirements (Memarian & Doleck, 2023). However, the implementation of AI-driven assessment technologies also gave rise to significant concerns regarding the maintenance of accuracy, impartiality, and the representation of realistic student competencies. Whereas over-dependence on chatbots as argued by Williams (2024), can hinder student engagement and authentic learning; hence, educators should use AI to foster student autonomy while maintaining their self-efficacy. Higher education should mandate that students submit written assignments using plagiarism detection software such as Turnitin to guarantee authenticity. To establish the credibility of these evaluations with external entities like accrediting organisations or prospective employers, the university could furnish reports on the efficacy of these measures and uphold transparency regarding their assessment procedures, guaranteeing that the degrees and diplomas conferred accurately represent the genuine accomplishments of students.

Ultimately, it is imperative for higher education institutions to prioritise the precise assessment of student abilities as they explore the implementation of AI-driven assessments. A comprehensive strategy is necessary to tackle the problems of algorithmic bias, the assessment of intricate abilities, and the incorporation of human expertise. By implementing this approach, institutions may guarantee that AI-driven evaluations would enhance a fair and efficient system of student assessment, eventually fostering the achievement and growth of all students.

3.3 Balancing AI benefits while maintaining academic integrity

Balancing the benefits of AI with academic integrity presents a significant challenge for higher education. While Abramson (2023); Dwivedi et al., (2023); Sweeney (2023) focus on the negative impacts of AI on academic integrity, they do offer insights into navigating this complex issue. One suggested approach involves integrating AI into the assessment process, but with a focus on critical engagement and transparency. Rather than viewing AI as a threat, universities could reimagine assessment by encouraging students to utilise AI tools, such as ChatGPT, as a starting point for their work. Students could then be tasked with critically analysing, interpreting, and expanding upon the AI-generated content, demonstrating their own understanding and insights. This approach emphasises the process of learning and thinking, rather than simply producing a final product.

Another key aspect is transparency, which is crucial in this approach. Students should clearly acknowledge the use of AI in their work, specifying the extent of AI assistance and their own original contributions. This transparency allows educators to accurately assess a student's understanding and discourages the outright passing from AI-generated content as original work. Furthermore, universities might consider a shift towards assessment methods less susceptible to AI-generated content. Examples include viva voce examinations, where students defend their work orally, or creative approaches like theatre and storytelling, which require a depth of understanding and application difficult for current AI technologies to replicate (Schiff, 2022).

Hence, navigating the delicate balance between the benefits of AI with academic integrity lies in developing a culture of critical engagement, transparency, and academic honesty. This requires a shift in focus from solely evaluating the final product of an assignment to considering the student's entire learning process (Sanchita & Sandhya, 2023), including their research, critical thinking, and original contributions. This can be achieved through incorporating reflective assignments, encouraging transparency in AI use, and exploring alternative

assessment methods. Additionally, universities must prioritise learner training to help students understand the ethical implications of AI and differentiate between legitimate writing support and unacceptable outsourcing of academic work.

4.0 Policy recommendations

When electing the use of GenAI tools for assessment support, higher education institutions (HEIs) must strive to develop an AI usage framework well-supported by a relevant set of ethical guidelines considering all stakeholders. A recent study conducted by Lai et al. (2024), demonstrates tangible insights into the adoption patterns of GenAI tools by undergraduate students for assessment support. Lai et al. (2024) investigated GenAI adoption patterns using key motivators and barriers such as trust, moral obligation, perceived risk, performance expectancy and effort expectancy. Their findings demonstrate a high adoption rate with trust, performance expectancy and effort expectancy being the strongest determinant for students' intention to use GenAI for assessment support, whilst moral obligation and perceived risk being the significant inhibitors. Consequently, Lai et al. (2024) findings prompt HEIs to develop AI policies that; a) Promote the ethical use of GenAI tools through suitable guidelines, seminars and workshops directed at both faculty members and students, b) Incorporate plans to improve the accuracy and transparency of student data used to train large language models (LLMs) to build student trust, c) Educate students' understanding of plagiarism and ethical use of GenAI tools, and d) Develop advanced mechanisms to enhance the explainability and security of GenAI models.

A scoping review on how GenAI transforms academic assessments in higher education conducted by Xia et al. (2024) reveals that students favoured the use of GenAI tools for both assessment support and grading. Concluding that GenAI offered immediate and diverse feedback, unbiased feedback, and self-assessment opportunities. On the contrary, the study raised significant concerns relating to academic integrity and a balanced AI-Human model for guided usage. Academic integrity, ethical challenges and potential risks associated with the adoption of GenAI demand innovative AI policies and guidelines as recommended by Xia et al. (2024). These include; a) Higher education institutions should design policies that call for the redesign of assessment and related policies to account for the potential and limitations of GenAI, b) Enhance Educator Training – provide ongoing professional development for educators to enhance their AI proficiency and ability to design innovative assessments that foster critical thinking, c) Promote Interdisciplinary Learning – Include Teaching and Learning

policies that encourage the development of interdisciplinary assessments that reflect the complex and interconnect nature of real-world problems, and d) Foster Student Responsibility and Integrity - HEIs should emphasise the importance of academic integrity and responsible use of GenAI tools.

The integration of GenAI within higher education is an ongoing discussion that must not only consider the ethicality and accountability of using GenAI tools for assessment support, but also its data privacy concerns. In his article Williams (2023) presents a conceptual analysis of the ethical ramifications of employing GenAI tools in higher education, focusing on data privacy. Most GenAI tools are proprietary meaning that details regarding their internal architectures, training data, data handling and algorithms are “blackboxed”. Consequently, Williams (2023) ; Lai et al. (2024) strongly informs that HEIs must advocate for responsible data management within its AI policies and guidelines. Williams (2023) recommends that higher education institutions: a) Develop comprehensive data management policies that prioritises the privacy of both student and institutional data and aligns to both legal and ethical regulations. Students and faculty members should be reminded about preserving control of their digital information, b) Develop clear ethical guidelines for the election of GenAI tools in supporting and grading student assessments. Focusing on fairness, transparency and inclusivity, c) Implement training interventions that enhance students’ understanding of AI tools, including potential risk and ethical implications, d) Encourage the use of GenAI to complement and enhance the learning experience and not undermine it, and lastly e) Develop robust strategies to mitigate academic dishonesty and promote a culture of integrity.

HEIs must also take cognisance of the adoption rate and heterogenous GenAI tools employed by students for assessment support in order to develop comprehensive and agile ethical frameworks, ensuring its alignment with the institution’s core academic values and societal expectations. According to Saxena et al. (2023) institutions should consider; a) Establishing an Ethical AI Committee for continuous monitoring, evaluation and guidance on the use of GenAI for assessment support, b) Increased awareness and understanding of AI’s ethical implications among educators, policymakers and technology developers, and lastly, c) Inspire collaborative efforts among educators, technologist advocating a shared responsibility for ethical AI integration.

5.0 Roles of stakeholders

The role of stakeholders within the context of adopting GenAI in student assessments, is one that demands a collaborative and multidisciplinary approach to guarantee ethical and effective integration. Higher education institutions must position themselves as the primary drivers for the implementation of GenAI in student assessments, promoting data security, ethicality and accountability (Saxena et al., 2023; Williams, 2023). They should be accountable for establishing clear GenAI guidelines, deliver training interventions and verify that GenAI tools are used to augment traditional assessment methods rather than replace them (Saxena et al., 2023).

Educators serve a pivotal role in advocating and steering the use of GenAI against recommended usage guidelines. Additionally, educators must remain the primary authority when electing the use of GenAI tools to augment their ability to provide personalised and diverse feedback when grading student assessments (Xia et al., 2024).

Students are important participants whose views should shape the ethical implementation of GenAI in education, in particular assessments. Students must be taught how to apply GenAI to support their assessment journey and data management to secure their and the institution's privacy Williams (2023); Lai et al. (2024).

AI developers and technology providers must work closely with institutions to develop AI-enhanced platforms that are transparent, reliable and ethically sound. This includes addressing the potential biases in AI algorithms and ensuring that data privacy is maintained Williams, (2023); Lai et al. (2024).

Institution policymakers should be tasked with developing AI regulatory frameworks that preserve the ethical adoption of GenAI in student assessments. Their primary objective is to safeguard the interests of all stakeholders, especially students, through policies that ensure equity, inclusivity, and transparency in AI-driven assessments Williams, (2023); Saxena et al., (2023); Xia et al. (2024).

6.0 Conclusion

This study examined the ethical implications of using AI in higher education student assessments. The main concern identified is the potential harm to academic integrity, as AI tools like ChatGPT can produce text that mimic human writing, allowing students to submit work that is not their own. This issue is particularly challenging in distance education settings, where monitoring is difficult and it's hard to distinguish between a student's genuine effort and AI assistance. The study emphasised the importance of a balanced approach that harnesses the benefits of AI while maintaining academic honesty. While AI can personalise learning, provide immediate feedback, and offer innovative assessments, its misuse can undermine the values of academic qualifications. The study proposes several strategies to address these concerns. One approach is to promote transparent use of AI, where students acknowledge its use and specify their original contributions. Another suggestion is to shift towards assessment methods that are less susceptible to AI-generated content, such as oral examinations or creative projects. Additionally, it is crucial to foster a culture of academic integrity by providing clear guidelines on acceptable AI use, educating students about plagiarism and ethical considerations, and prioritising training to help them differentiate between legitimate writing support and unacceptable outsourcing of academic work.

Given the concerns, the study recommends for the establishment of clear guidelines and ethical frameworks regarding the use of AI in assessments. Educational institutions need to develop comprehensive policies that address the responsible use of AI, ensuring fairness, transparency, and accurate evaluation of student abilities. We acknowledge that the use of AI in education is still evolving and requires ongoing research and examination. Future studies could investigate effective strategies to promote academic integrity in online settings.

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